

WE CLAIM:

1. A method of defining a set of business rules during runtime of a software application program in a computer system, the method comprising:

during runtime of the software application program,

- (a) specifying a current rule for the set of business rules;
- (b) defining at least one condition for the current rule;
- (c) defining at least one action for the current rule, wherein

the at least one action is based on the at least one condition;

(d) linking the at least one condition with the at least one action to define a business rule from the current rule; and

(e) repeating operations (a)-(d) until each business rule in the set of business rules has been defined.

2. The method of claim 1, further comprising:

prior to specifying a current rule, creating a rule category for the set of business rules;

defining a state object for the current rule, wherein the state object comprises user data relevant to the current rule; and

after linking the at least one condition with the at least one action to define a business rule from the current rule, storing the current rule in the rule category for the set of rules.

3. The method of claim 2, wherein the user data comprises fields stored in a database.

4. The method of claim 3, wherein the at least one user action updates the fields in the database during runtime of the software application.

5. The method of claim 2, wherein storing the current rule in the rule category for the set of rules comprises:

generating a data file for the current rule in the rule category;  
saving the data file in the computer system.

6. The method of claim 5, wherein saving the data file in the computer system comprises saving the data file to the database.

7. The method of claim 5, wherein the data file is an XML file.

8. The method of claim 1, wherein the at least one condition is a pattern condition.

9. The method of claim 1, wherein the at least one condition is a structured query language (SQL) condition.

10. The method of claim 1, wherein the at least one condition is a script condition.

11. The method of claim 1, wherein the at least one action is a pattern action.

12. The method of claim 1, wherein the at least one action is a structured query language (SQL) action.

13. The method of claim 1, wherein the at least one action is a script action.

14. A method of evaluating a business rule during runtime of a software application program in a computer system, the method comprising:

during runtime of the software application,

retrieving a business rule, wherein the business rule comprises at least one defined condition and at least one defined action; and

evaluating the business rule based on the at least one defined condition, the at least one defined action, and user data in a state object.

15. The method of claim 14, further comprising determining success of the business rule based on the evaluation.

16. The method of claim 14, further comprising updating existing user data in the state object based on the evaluation of the business rules.

17. The method of claim 14, further comprising adding new user data to the state object based on the evaluation of the business rules.

18. The method of claim 14, wherein the business rule is retrieved from a database.

19. The method of claim 14, wherein the business rule is retrieved from a file.

20. The method of claim 14, wherein the at least one condition comprises at least one of a pattern condition, structured query language (SQL) condition, and a script condition.

21. The method of claim 14, wherein the at least one action comprises at least one of a pattern action, a structured query language (SQL) action, and a script action.

22. A computer-readable medium having computer executable modules for defining and executing a set of business rules comprising:

a rule designer module for:

- creating a rule category for the set of business rules;
- (a) specifying a current rule for the set of business rules;
- (b) defining at least one condition for the current rule;
- (c) defining at least one action for the current rule, wherein the at least one action is based on the at least one condition;
- (d) linking the at least one condition with the at least one action to define a business rule from the current rule;
- (e) generating a data file representing the defined business rule; and
- (f) repeating operations (a)-(e) for each business rule in the rule category; and

storing a data file generated for each defined business rule in the rule category; and

a rules engine module for evaluating each business rule in the rule category.

23. The computer-readable medium of claim 22, wherein the user data comprises fields stored in a database.

24. The computer-readable medium of claim 22, wherein the rules engine module evaluates each business rule based on the at least one condition and the at least one action.

25. The computer-readable medium of claim 22, wherein the at least one condition is a pattern condition.

26. The computer-readable medium of claim 22, wherein the at least one condition is a structured query language (SQL) condition.

27. The computer-readable medium of claim 22, wherein the at least one condition is a script condition.

28. The computer-readable medium of claim 22, wherein the at least one action is a pattern action.

29. The computer-readable medium of claim 22, wherein the pattern action uses dynamic binding.

30. The computer-readable medium of claim 22, wherein the at least one action is a structured query language (SQL) action.

31. The computer-readable medium of claim 22, wherein the at least one action is a script action.

32. A system for defining a set of business rules comprising:  
a rule designer module for:  
creating a rule category for the set of business rules;  
(a) specifying a current rule for the set of business rules;  
(b) defining a state object for the current rule, wherein the state object comprises one or more data objects, each data object containing user data relevant to the current rule;  
(c) defining at least one condition for the current rule;  
(d) defining at least one action for the current rule, wherein the at least one action is based on the at least one condition;  
(e) linking the at least one condition with the at least one action to define a business rule from the current rule;  
(f) generating a data file representing the defined business rule; and

(g) repeating operations (a)-(f) for each business rule in the rule category; and

a database for storing the user data for in the state object defined by the rules engine module;

33. A computer system for evaluating a business rule comprising:  
a rules engine module for:

retrieving a business rule, wherein the business rule comprises at least one defined condition and at least one defined action;

evaluating the business rule based on the at least one defined condition and the at least one defined action;

determining the success or failure of the business rule based on the evaluation; and

updating user data in a state object based on the evaluation of the business rules.

34. The computer system of claim 33, wherein the rules engine module adds new data to the state object based on the evaluation of the business rules.

35. The computer system of claim 33, wherein the at least one condition comprises at least one of a pattern condition, structured query language (SQL) condition, and a script condition.

36. The computer system of claim 33, wherein the at least one action comprises at least one of a pattern action, a structured query language (SQL) action, and a script action.